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SIR JOHN M'FADYEAN

(*Continued from page 114*)

III.—The London Period, 1892-1927

It is difficult to do justice, even at this date, when he had long been in retirement, to the scope and character of M'Fadyean's endeavours during his 35 years as head of the Royal Veterinary College, London. On the one hand, the impressiveness of his authority was firmly engraved on the minds of an older generation than that within which the majority of our present readers are comprised. On the other hand, it is too early yet to treat his activities and their results in the manner of an historical analysis, from which might well emerge their real value to the steady progress of veterinary science. Will M'Fadyean be accepted by posterity as the great man, the towering figure, to whom men who knew him in his prime always deferred?

It may be well to dwell shortly on the circumstances of his appointment as head of the London College. His appointment was made on invitation from the Governors, not on selection from a list of rival candidates. The published announcement reads :—

" At a meeting of the Governors of this college, held on December 18th [1891] a recommendation from the General Purposes Committee was submitted and unanimously approved, appointing Professor M'Fadyean, F.R.S.E., M.B., B.SC., C.M., M.R.C.V.S., Dean of the College, and Professor of Pathology and Bacteriology; Professor Macqueen, F.R.C.V.S., was also appointed to the professorship of Cattle Pathology.

" On behalf of the Governors, Sir Nigel Kingscote thanked Professor [late Sir George] Brown [head of the veterinary department of the Privy Council, the forerunner of the present Animal Health Division of the Ministry of Agriculture] for the assistance he had given them as Principal of the College, and hoped he would retain that office, and also, at the next opportunity be elected a member of the governing body."

It was no doubt the intention of the Governors that Sir George Brown should remain nominally head of the College, retaining the designation of principal, until M'Fadyean had established his authority over the staff and students, the provisional designation of " Dean," which clung to him for many years later on the lips of the students, being given to him in the meantime. Mr. Dollar has assured us that M'Fadyean's appointment " was due to the personal influence of no one, but he succeeded because he stood head and shoulders above any man in his profession at the time and was of such outstanding ability that no veterinary college could have conferred distinction on him, but just the opposite." In the Jubilee Number of M'Fadyean's journal, Mr. Dollar has given an intimate impression of the circumstances of the appointment :—

" . . . my deeply loved Principal, Professor Wm. Robertson, died at his desk in the Principal's Office at Camden Town early in the Summer Session of 1889. At the opening of the College next autumn *not a word* was mentioned of the man who had given his life for the College. His successor's [Professor Brown's—'a dismal Jimmy' of a man according to Mr. Dollar] career was not long, its principal feature appeared to be *spending*. It was he, or the Governors, who distributed the little patrimony of the College (houses in Great College Street, where the Research Institute now stands) in useless buildings. Very soon the College was virtually bankrupt. The Governors met, the successor resigned, a new Atlas had to be sought. None of the ' old gang ' were to be thought of. The Governors did not know where to look. Sir Frederick FitzWygram, who as an ' *externe* ' student at the Dick Veterinary College about 1849 or 1850 had known my father and never relinquished the friendship, came to consult my father and obtain advice. By bad luck my father was out. Sir Frederick, who knew I had been a student at Great College Street, and was acquainted with affairs behind the scenes, mentioned the Governors' dilemma and actually asked *me* whom I thought the most likely man. I unhesitatingly said McFadyean. I had already a knowledge of his genius as an anatomist, his interest as a student, working for the Edinburgh M.B. between his own lectures and demonstrations, his courage in defending his students against unjust action by the Colossus [George Fleming] of those days —and I was strongly drawn towards him. ' But,' said FitzWygram, 'he has a very dangerous temper ' (this was the reputation given forth by Fleming). I explained the situation to Sir Frederick and he departed—*more suo*, whistling all out of tune and inscrutable. The next thing I knew was when Professor M'Fadyean arrived one evening at our house, 56, New Bond Street, to announce he was to meet the Governors of the R.V.C. the following day over the question of his appointment. The position was anxious, as I assured him, the College nearly bankrupt, its resources nil, the ' old gang ' bitterly hostile, and the College's reputation with the public at a very low ebb. Professor M'Fadyean came, saw, and accepted. What he has since done is plain to all. . . ."

There is no doubt, from the testimony of other contemporaries, that in the days immediately before M'Fadyean's appointment the London College had sunk into a very low state. The members of the teaching staff were lax in discharging their duties towards their students, being attracted to outside practice or horse-racing matters at the expense of attendance during teaching hours, and their lack of knowledge, combined with their vanity, earned for them the contempt of the students, among whom the discipline was so bad that the place was, it has been said, a " bear garden." The late Sir Frederick Hobday, who was in his final year as a student when the change-over took place, was always deeply insistent that no one could appreciate the full extent of M'Fadyean's

achievement who did not know of the great transformation he rapidly brought about by introducing strict discipline among the students who, in their turn, obtained full value for their fees from the new efficiency of their teachers. One anecdote may now not be out of place to illustrate M'Fadyean's methods. One of the clinical professors, a vain man, it seems, who prided himself on his practical knowledge and gave his lectures, dressed in an academic robe, always reiterating in pompous language the same monotonous theme, had failed to give a lecture at the appointed hour. He was summoned by the new Dean to his (the Dean's) office. He sent a reply by the messenger saying he would sooner resign than accept this humiliation. He was calmly informed that in such case his resignation *would* be accepted. No further trouble occurred in regard to his attendance.

It was the survival in the unconscious mind of generations of staff and students of original, prompt, cool, just handling—using the fewest words in the process—of unpleasant situations, which probably made a later writer familiar with the wonderfully good order in the College before the last Great War say: "There was also about him an 'indescribable something,' which pervaded the atmosphere of the College, and led to good, but not irksome, discipline. Gross breaches were therefore rare."

The origin of M'Fadyean's appointment in 1892 as Professor of Pathology and Bacteriology was an annual grant of £500 made in 1889 by the Royal Agricultural Society of England for the purpose of establishing a Chair of Comparative Pathology and Bacteriology. It had been Youatt's fond hope many years before that date that some close bond of the kind should be formed between the "Royal" and the College, but his designs were frustrated largely through the inefficiency of the teaching staff in matters concerning agricultural livestock. The revenues of the College, which were limited to students' fees and the small profits of hospital practice, were obviously insufficient for undertaking investigational work according to the then new methods of bacteriology. The grant from the "Royal," small as it was, therefore represented the earliest contribution from public funds towards research in veterinary science. It is clear that the staff at the College at the time of making the grant were ignorant as to the uses that ought to be made of it. This is evident from the tone of a leader in an issue of the *Veterinarian* (then edited by members of the College staff):—

"With the aid of a liberal grant from the Royal Agricultural Society, a new department is about to be opened for the systematic investigation of farm stock, and we may state that arrangements are so far advanced that the College authorities are prepared to receive applications from candidates for the office, which for the moment we may designate by the title of Professorship of Bacteriology and Comparative Pathology.

"Tentatively, the above title describes the kind of candidate required, *i.e.*, a bacteriologist of experience familiar with all methods of cultivation and preparation of microbes and morbid structures. Nationality need not be a consideration if the word be taken to include familiarity with the English tongue."

"Knowledge of the science of pathology is quite indispensable; but practical acquaintance with diseases of the lower animals need not be insisted on, as the veterinary staff at the College can supply that omission. The chief work of the new officers will be, as we understand, that of taking up the inquiry at the point where the practical man leaves it. . . ."

A man of the kind contemplated in the above passages (Coghill) was indeed at first appointed, but the main effect which the small R.A.S.E. grant had on the minds of the College authorities, however, was that it spurred them to an orgy of spending, on buildings. The long new block which comprised main lecture theatre, practical pathology class room, museum, library and biological practical class room and over the long "ride" for testing horses for soundness at the old College was built at this time. It would be probably an overstatement on the part of a student at the College before its more recent entire rebuilding to subscribe to Mr. Dollar's view that the above block of buildings was entirely "useless." But, there is no doubt that the meagre finances of the College were heavily strained by its erection, and the emoluments offered to the teaching staff, including those to the newly appointed Dean, were very low when viewed by present-day standards.

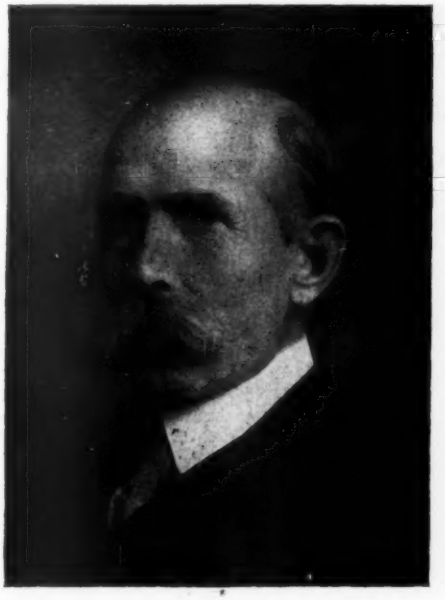
Compared with the other members of the teaching staff, however, he enjoyed several distinct personal advantages derived from living accommodation and certain other amenities provided free to him on the College premises. At the time of his arrival in London his domestic circle had suffered undoubtedly a long period of, if not hardship, at least an absence of the easy or luxurious living of more modern days, caused by the inadequacy of the emoluments at the Edinburgh College, while he was straining to his utmost to advance himself, having at his back only those emoluments, in pursuit of his ambition to advance in his science. To those who first came into contact with M'Fadyean during the later stages of his career, there was much about his personality that seemed inscrutable and impenetrable, but which perhaps may be explained by the circumstances of his early life. The writer, whom we have already quoted, of the tribute in the Jubilee Number of M'Fadyean's journal, who came into contact with the man for some time during his late prime (1903-1909), has said: "I wondered often whether anyone outside his family circle really *knew* Sir John M'Fadyean. . . . He seemed to be always absorbed in some problem, rarely laughed aloud and did not often smile. . . . He appeared to have laid out a set course for himself from which he would not be diverted. . . ." If we study closely the series of photographs reproduced in this journal depicting the man during successive stages of his career we can hazard the view that with advancing years much change in personality is evident, that has been conditioned by acquisition of power and greater stability in material means. To attain the highest degree of efficiency, he practised strict economy of his means and powers and did not dissipate them idly or frivolously on casual converse, with the insufficiently educated or unintelligent. This kind of outlook did not make for geniality, as distinct from cold orderliness, in the intercourse of a laboratory, and hence for the stimulation of the more sensitive young men to self-confidence and fruitfulness. But when M'Fadyean came to the London College in 1892, a man endowed with weaker will-power than he possessed would probably not have succeeded as he did in rapidly instilling into that institution an atmosphere of authority such as it had never had and gaining for it a prestige which no other man has been within measureable distance of obtaining for it. The single-mindedness of the man is portrayed when he first

came to the College with his young domestic circle in 1892. Helplessly dependent in all domestic arrangements on his wife, who was endeavouring to install her young family somehow, in the confusion, in their new quarters, he turned and exclaimed to her that anyhow he had come to a place where he would "have practice." By this he wished to convey what would not be meant by most people, for he added, when recounting the incident very many years afterwards: "And I did, too, for during the next twenty years I post-mortemed myself every horse that died in the College."

We hope thus in dilating upon the transformation wrought by M'Fadyean in the discipline of the College on his arrival in 1892 that we have deferred to the wishes of men like the late Sir Frederick Hobday, who had insisted strongly that justice would not be done to the memory of M'Fadyean when his day was over unless stress was laid upon his achievement at that critical stage in our history. The writing of his later achievements in veterinary science presents little difficulty, for there is ample record of them. The understanding of his "legend," however, might escape posterity were it not that we have a lively recollection of the spoken statements of men who lived to hand on to us his tradition, which only now after a long life is open to proper scrutiny. The appointment of two strong young Scots, of ability and character, namely, M'Fadyean and Macqueen, on the scientific and clinical side, respectively, by the Governors to the staff of the London College at the end of 1891, met with a long period of success which they (the Governors) could hardly have anticipated. Readers would do well to refer in this journal to the speech, redolent of humour and kindliness, which M'Fadyean made in 1930 at the special luncheon at which he handed over to his old colleague, Macqueen, at the latter's retirement, the presentation to which large numbers of their old students had subscribed.

"Throughout the history of education in this country, or indeed in any other, it would be difficult to find a parallel to the case of John M'Fadyean by whose single-handed efforts the Royal Veterinary College, one of the most extraordinary of British institutions, was kept alive of its own momentum for over a quarter of a century without any form of assistance or sympathy whatsoever from municipality or State." So wrote a colleague, Professor Share Jones, who was closely associated with M'Fadyean at the London College in his early prime, in the Jubilee Number of his journal in 1937. As the years during which M'Fadyean's sway over the College recede and now that the cost which must rightly fall on the State for the maintenance of a properly equipped veterinary college has been the subject of recent careful investigation, the words chosen in the above tribute gain steadily in emphasis. Mention has already been made of the small annual grant of £500 for a Chair in Comparative Pathology generously allocated by the R.A.S.E. in 1889. To this was added an annual grant of £800 by the Board of Agriculture for the general purposes of the College in 1906. Then came a subsidy for purposes of research from the Development Fund in 1911. It was not until shortly before M'Fadyean's retirement in 1927 that urgent approach was made to the State for a small sum, relative to what was later found to be necessary by a Departmental Committee (the Martin Committee), in 1929, for rebuilding, in part, some of the tottering structures which housed the College. The Departmental Committee, as is well known, found that the whole edifice needed reconstruction and to provide an adequate teaching staff a large annual subsidy from the State was required. So great were the prestige and orderliness of the College while M'Fadyean and his staff were at the height of their powers, as they were in the years before the last Great War, that no one realised they were working under difficulties which an enlightened State ought to have long removed.

Throughout his stay at the College M'Fadyean conducted on his own a service of free advice and examination of pathological specimens for veterinary practitioners for which they were unfeignedly thankful.



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"While he was at Camden Town we were able to send him *post-mortem* specimens, and we obtained reports on them free of any charge. We could write to him for his opinion on various subjects and obtain his help. He was almost 'unstumpable.' We knew there was in him a fountain of information which he would willingly let us tap at any time. Could anyone expect a better post-graduate service?" These words, recorded by a leading practitioner who had been one of his best pupils, are representative of the feelings generally of practitioners.

The origin of this service is to be found in a passage from one of M'Fadyean's Annual Reports to the R.A.S.E. (for 1901):—

"In the first place, the laboratory [founded in 1890 for research in Comparative Pathology and Bacteriology on the grant from the R.A.S.E.] is now recognised throughout the kingdom as a place to which recourse may be had by veterinary surgeons and members of the Society in the elucidation of what appear to be obscure or unconscious cases of diseases affecting any of the lower animals; and, secondly, the material which is thus sent to the laboratory

is daily utilised with great advantage in the practical teaching of pathology to the rising generation of veterinary surgeons."

A wealth of pathological material for teaching and research was ensured through a prompt and business-like service to the practitioners. The *post-mortem* room in M'Fadyean's earlier days provided an abundance of carcases, mainly of horses, for demonstration. At this date it is interesting to recall that there was never in those days a scarcity of fresh glandered material from which to start virulent cultures in the manufacture of mallein. A large and unique collection of preserved specimens for histological teaching and research became available, but was unfortunately for the most part destroyed after the termination of his services at the College.

Teaching.—Pathology and bacteriology became recognised as a separate subject in the R.C.V.S. curriculum, for the third (or C) year of study, when the course was extended from three to four years, in 1895. M'Fadyean himself lectured, four times weekly, throughout his stay at the College to the classes, and until he received some assistance through the appointment of a demonstrator in 1903, conducted practical classes and demonstrations. His lectures were a model of precision and lucidity, and the teaching of his subject was so far advanced that a medical witness who had acted as examiner in the subject for the R.C.V.S. declared before the Advisory Committee on Research into Diseases in Animals, in 1921, that he had set the same questions for medical and veterinary candidates and found that the standard of knowledge of the veterinary students was the higher. For making an "odious comparison," the late Sir Clifford Allbutt brought upon himself in 1907, the righteous wrath of Sir John M'Fadyean, when it was pointed out to him how greatly he had erred in estimating the scientific training of veterinarians as pathologists (and he then duly apologised) after he had uttered at a meeting the view :—

> "As an example of what he meant he instanced the fact that even trained anatomists and pathologists who were perfectly familiar with horses were at times forced to call in a 'vet.', who in his clear empirical way put his finger instantly on the defect which the skilled anatomist had been unable to detect. That soul of instinct or empirical knowledge in regard to children was what teachers ought to have, and they could acquire it if quick-witted without being taught medical science."

The efficiency of the teaching imparted by Sir John was such that the proportion of failures in his subject in the R.C.V.S. examinations was almost a record low one.

Post-Graduate Courses.—From 1903 until the war of 1914 M'Fadyean conducted post-graduate courses each of two months' duration, at first once yearly, but soon, on account of the increasing demand for them, twice yearly. He had taken the closest interest from its beginnings in tropical veterinary pathology, with its emphasis on the importance of protozoan diseases. More by far than is evident from his publications, he was conversant with the coccidioses, trypanosomiases, and piroplasmoses. For demonstration to these classes, several strains of the trypanosomes were propagated in his laboratory, and the students had access to good material depicting bovine and canine piroplasms. In his lectures, he was wont to recall to his memory the date (1893) of publication of Theobald Smith and Kilborne's classic paper on the causation and natural transmission of Texas fever as the beginning of a new era in our knowledge upon animal diseases. For each class, a horse succumbing to South African horse-sickness (the causal agent of which he first discovered) was demonstrated. More advanced instruction in the bacterial and virus diseases than was given in the ordinary third-year classes was also imparted. The classes therefore proved a boon to veterinary officers serving overseas, whether in the colonial services or in the army, and for those engaged in the public services at home. For the work of personally conducting these classes he received no remuneration from the Governors. In 1913, short special courses on tuberculosis were begun for veterinarians to acquaint them with the requirements of the newly-introduced Tuberculosis Order.

Mention must be made of the loyal assistance given to Sir John by his assistant, Dr. Leslie Sheather, from 1906 onwards.

Research.—Although the volume of research forthcoming from Sir John's laboratory was imposing, no special facilities in the shape of a modern institute designed for the purpose were at his disposal until very late in life. The old two-roomed department at the north-east corner of the quadrangle was the home of his greatest activities, and in his earlier days he worked long hours there solving his problems. It came to be designated a research institute in animal pathology after the receipt of the grant for research from the Development Fund in 1911. In 1924, the present Research Institute was erected by him, from Government funds, after publication of the Report of the Advisory Committee on Research into Diseases in Animals, and he remained Director (without real remuneration) until his retirement in 1927.

Mention has already been made of some of the aspects of research which M'Fadyean had initiated in Edinburgh before he came to the London College, most of which, especially those on tuberculosis, he continued to prosecute actively in his new appointment. A full summary of his researches would occupy more space than we are justly entitled to in this journal. In the main, his papers are easily accessible for reference in his own journal, and lists were published in the Jubilee Number, in 1937.

A brief survey is given only of some of his researches. Some of these, more particularly those on contagious abortion and swine fever, were undertaken largely as the outcome of his work on Departmental Committees. This became increasingly evident after the appointment of Stockman as Chief Veterinary Officer of the Board (now the Ministry) of Agriculture in 1905.

(1) *Glanders.*—He was the first to investigate this disease, which was rampant at the date of his arrival at the London College, in 1892, bacteriologically in this country. With the collaboration of the late Wm. Hunting, who was pre-eminent in clinical knowledge of the disease and the advocacy of measures for its control, he published a paper on the use of mallein in diagnosis late in 1892, representing the first application of the test in this country. A further paper by him on the subject appeared in 1893, which established the reliability of the test. A paper on the application of the agglutination test in diagnosis, of which he was the originator, appeared in 1896. We believe this to be the first record of the application of this test in the diagnosis of disease in the domesticated animals. In editorial articles he early explained precisely the

methods that ought to be adopted in stamping out glanders. The histopathology of the lung lesions was described in a paper published by him in 1895. His experiences were summarised in the Harben Lectures delivered by him in 1904. A paper by him on the prophylaxis of the disease appeared in 1905. It was his belief that the measures advocated would result in the suppression of the disease until a stage was reached when there would remain a small permanent residue. Before the outbreak of the 1914 war, however, success had attained the measures to the extent that the disease had become completely eradicated from this country. [One of his activities came to be the manufacture of mallein for sale to veterinarians, the part proceeds of which contributed handsomely to the College revenues, as did those from the sale of tuberculin.]

(2) *Anthrax*.—Several papers and addresses by him on this subject appeared from the beginning of his career as a bacteriologist. Vaccination experiments were described in 1894. He described anthrax in city horses in 1900. He reported his discovery of the methylene blue reaction for the bacilli in blood in 1903. The presence of anthrax bacilli in milk was recorded in 1909. Infection of cattle with anthrax by means of linseed cake was reported by him in 1901, and was the subject of an important High Court of Justice trial. One of the most important services he rendered to practitioners for many years was the diagnosis and prompt reporting by telegram of anthrax in blood smears. This ceased only when diagnosis was taken over by the veterinary department of the Ministry of Agriculture.

(3) *Swine Fever*.—Experiments carried out at the London College were reported by him in 1895, from which he concluded, erroneously, that the hog-cholera bacillus (*S. suipestifer*) was the cause of the disease. The morbid anatomy of the lesions was well described by him in 1896. The classic paper by the American workers, Dorset, Bolton and McBryde on the discovery of a virus as the cause of the disease was reproduced in his journal in 1905. Subsequently, a Departmental Committee, appointed in 1910, on which he and Stockman served as expert members, confirmed and extended the findings of the American workers. A comprehensive analysis by him of the situation resulting from the application of stamping out measures appeared in 1917, in the *Journal of the R.A.S.E.*, from which it was evident that no useful purpose could be served by pursuing the policy.

(4) *Tuberculosis*.—The study of this subject may be said to have been the main item of his life-work. It has been already said that this item has been well reviewed by Mr. Glover in the Jubilee Number of his journal. His numerous contributions comprise studies on (*a*) equine tuberculosis, (*b*) the relation between human and bovine tuberculosis, (*c*) the natural transmission of tuberculosis, (*d*) the control of tuberculosis, by vaccination, (*e*) the tuberculin test, (*f*), congenital tuberculosis, (*g*) tuberculosis in the sheep and goat, and (*h*) tuberculous mastitis.

It was his authority to speak on the subject of the animal tuberculoses that brought his name conspicuously before the public in the year 1901. The occasion was the holding of the British Congress on Tuberculosis in London in 1901. Some doubts had been raised as to the wisdom of holding this Congress, because the Boer War was in progress and a new Monarch on the Throne, with the Court in mourning. It proved, however, that its holding produced a degree of excitement which could not have been anticipated and which now is hard to comprehend. Koch had been invited to read a paper entitled, "The Combating of Tuberculosis in the Light of the Experience which has been Gained in the Combating of Other Diseases." Following his finding that there were differences between tubercle bacilli isolated from human and bovine sources, Koch concluded that bovine tuberculosis was not transmissible to man. The atmosphere of excitement produced by this pronouncement was, it is recorded, "electrical." If this should be confirmed, States and municipalities had been wasting their money in inspecting meat and milk to exclude tuberculous infection of human beings from this source. Several distinguished men were due to speak in the discussion, but the whole prospect had been changed by Koch's pronouncement. Professor M'Fadyean, who had already prepared his discourse, was delegated to review Koch's evidence in an address to be given next day. The result was a piece of masterly analysis which refuted Koch's main arguments. Already, in 1899, M'Fadyean had been warning members of his own profession, in an address given at the N.V.A. General Meeting at Plymouth, against the dangers of exaggerating the risks to the human subject from tuberculous meat. It was, he said, thus "exceedingly doubtful whether any cases of pulmonary consumption in man, which is the rampant form of tuberculosis in the human subject, ever originated from bovine tuberculosis . . ." Now, in the face of Koch's pronouncement, he felt bound to caution acceptance of a position which was fraught with danger from an opposing direction. So, after modestly opening by saying that he felt unworthy to unloosen the latchets of the illustrious man's shoes, M'Fadyean succeeded in stilling the disturbance caused by Koch's statements, pending further inquiry into their significance. The result was the setting up at once of a Royal Commission on Tuberculosis, on which M'Fadyean served as one of its distinguished members, specially to investigate the problem of the risks to human beings from the animal tuberculosis. The reports of this Commission published at intervals between 1904 and 1911 eventually clarified the situation, and prepared the way for Government action in the control of bovine tuberculosis. Action was only tardily taken, however, when the Tuberculosis Order of 1913 was introduced, which, as M'Fadyean said, was only "a mere reconnaissance to explore the position of the enemy." Much later, in his address as President of Honour at the opening of the Second Congress of Microbiology in London, 1936, he declared that although he was not of the nature to stir up tumult or insurrection, he wished to utter grave warning to Government of righteous protest from the public because of the long delay in introducing measures for the proper control of bovine tuberculosis. His work on tuberculosis earned him the first award of the Weber-Parkes Prize and Medal in 1933. It was undoubtedly his eminence as an authority on tuberculosis which gained for him, in 1905, the honour of Knighthood. The award was followed by tributes of universal gratitude from members of the veterinary profession in his personal honour.

(5) *Johne's Disease*, the disease so named by M'Fadyean after the discoverer, for whom he had a great admiration, was first reported by him in this country in 1907. Extensive studies upon it, with the

assistance of his junior colleagues, were recorded in 1912 and 1916, including the use of "johnin" in diagnosis. The histology of the lesions was described in 1918.

(6) *Contagious bovine abortion*, the cause of which was described by Bang in 1896, was investigated by a Departmental Committee, of which M'Fadyean was chairman, appointed in 1905. The reports of this Committee, published in 1909 and 1910, first gave indication of the specific nature of the disease in this country and the gravity of its distribution. He first, it seems, applied the agglutination test in diagnosis, the paper prepared in collaboration with Stockman appearing in 1912. A large mass of work on the disease undertaken with the assistance of junior colleagues was pressed forward in his laboratory at the College from 1912 onwards, primarily to ascertain whether the disease could be controlled by segregation of reactors to the test. This has been partly published in papers in his journal. With Stockman, he first reported the occurrence of *Vibrio foetus* as a cause of abortion in sheep.

(7) *Mare Abortion and Joint-ill in Foals.*—Papers on these subjects appeared in 1917, 1919 and 1923.

(8) *South African Horse Sickness.*—He was the first to discover the cause of this disease, namely, a filtrable virus, in 1900. A further paper on it appeared in 1901, and another, on the susceptibility of the dog to infection, in 1910. The discovery of a virus as the cause of horse sickness represented the second discovery of an animal disease of virus origin, the first being that of foot-and-mouth disease in the preceding year. A comprehensive review upon the ultra-visible viruses was published by M'Fadyean in his journal in 1908.

(9) *Louping-ill in sheep* was the subject of a remarkably good paper by M'Fadyean in 1894, when he reported on a visit he paid to Northumberland at the request of the R.A.S.E., and found that the term louping-ill was not applied to a single well-defined pathological entity, but included a variety of diseases causing deaths among ewes and lambs. His findings have been found to hold true, after much confusion and misconception, by later workers (Lyle Stewart and Ponsford, 1937). Another paper on the subject was published by him in 1900. A paper recording some work by him on scrapie appeared in 1918.

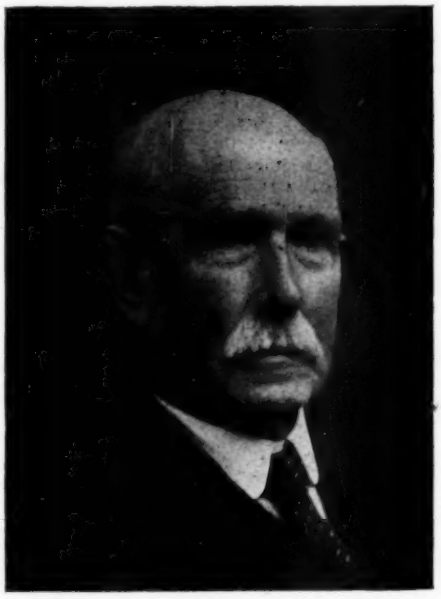
(10) *Animal Cancers.*—Mention has already been made of the pioneer work carried out by him on this subject before he left Edinburgh in 1892. Although specimens regularly came to him for diagnosis, he did not return to write on the subject comprehensively until after his retirement, a paper appearing in 1931. A paper on Hodgkins' disease in the lower animals appeared in 1903.

(11) *Piroplasmoses.*—With Stockman, he was the first to identify, in 1911, clearly the common European bovine piroplasm (*Babesia bovis*) (which was named, however, by them *Piroplasma divergens*) as a protozoan parasite specifically distinct from the "Texas-fever" parasite (*B. bigemina*).

(12) *Histo-pathological Studies.*—M'Fadyean showed great skill as a histo-pathologist, and it had been no doubt his intention to retire earlier so that he could devote himself at his leisure to study the materials in the College collection. Besides his studies on neoplasms in animals, papers on nephritis in animals (1929), the histology of tuberculous mastitis (1917), cholesteatoma in the brain of the horse (1902 and 1911), the lesions in Johne's disease (1918) were published.

(13) *Parasitic Diseases.*—Among a number of papers on this subject is an important one (1896) on verminous gastro-enteritis in cattle, recording two species of strongyles in the abomasum, *Str. convolutus* (*Ostertagia ostertagi*, Stiles) and *Str. gracilis*. Another paper, on parasitic gastro-enteritis in sheep and lambs, appeared in 1897.

Quite apart from M'Fadyean's contributions to the advancement of veterinary science in the shape of original research, it has to be stressed that throughout several years the value of his services to the public far exceeded the findings forthcoming from his own investigations. Perhaps to those who had reason to witness his activities during that period his greatest value was that of a sound critic and wise expositor.



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It is hard now for a newer generation to appreciate the merits of his services in this respect. With the general acceptance, as the only sure means of advance, of the outlook, that he held uniquely and resolutely in his day, upon the methods of dealing with the problems with which he was confronted, the task he undertook in his prime, for the benefit of his profession and of the public, now in retrospect, cannot be over-estimated in its value. A large well-trained specialist personnel guided by expert committees has now become available to elucidate technical problems in veterinary science as they arise. In his day, he represented, as it were, the only court of appeal that could be relied upon with confidence to deliver sound judgment upon the evidence, often confusing to the less well instructed, presented by the rapid increases in knowledge forthcoming from the published work of investigators abroad in the world that touched upon veterinary science. In the earlier volumes of his journal, numerous editorial articles which took the

form of critical surveys focused the attention of British veterinarians on the essential points in these advances. We have already said that his advice was always freely tendered to veterinary practitioners. He brought to focus for them, with characteristic clarity, several matters that needed elucidation, in his addresses to veterinary societies. He rendered nearly 40 years of honorary service to the R.A.S.E. On his resignation, in 1928, the President, the late Earl of Northbrook, said: "His sound advice had always been at the disposal of the Veterinary Committee and the Council of the Society, and Sir John had always shown to the Committee and to every member, the greatest courtesy and consideration. He had not only taken great pains to explain all the matters that came before them, but he had always, most willingly, listened to any suggestions which any member of the Committee or the Council had desired to make, and he had given his most careful attention to those suggestions and was always ready to give advice and help." His advice had powerful effect in shaping Government policies for dealing with animal diseases as we know them to-day. This became evident particularly after Stockman's appointment as Chief Veterinary Officer to the Board of Agriculture, in 1905. It is doubtless due to the vigorous stand taken by them that the policy of dealing with foot-and-mouth disease, by adopting "cattle plague measures," has been, in the face at times of great opposition, pursued in this country. He was the leader of the first small scientific committee on foot-and-mouth disease of the Ministry of Agriculture which proceeded in 1912 to investigate in India the characteristics of the disease, it being then thought prudent to avoid the risks of experimentation in this country. "After a period of six months' active work it was considered inadvisable to continue investigation as it was found that the indigenous cattle, sheep, and pigs of the plains of India were in a high degree insusceptible to the disease and were therefore unsuited for experimental work." He was an active member of the present (third) Foot-and-Mouth Disease Research Committee from the time of its appointment in 1924 until his resignation in 1937.

Services to the Council R.C.V.S.

M'Fadyean was elected to the Council R.C.V.S. in 1893, Vice-President in 1897, and President 1906-09. On the death in March, 1910, of his successor in office, Mr. Locke, he was elected to the chair for the remainder of the period. He was again elected President in 1930, the year of the International Veterinary Congress in London, as it was fitting that the holder of the office of President of the Congress should also be the official head of the profession. His greatest services were rendered as a member of the Examination and Parliamentary Committees. He was the staunchest advocate for a high standard of general education. In 1896 he resigned his membership and contested an election on the special issue of the standard of the educational entrance examination, and was then returned head of the poll with the largest number of votes ever recorded. He was one of the few members of the Council who led the profession in the appeal to Parliament for the institution of the Annual Fee and he was Chairman of the Committee which worked incessantly from 1908 to 1920 to obtain the Amending Act of 1920, which for the first time placed the College on a satisfactory financial footing. He resigned his membership of the Council in 1939, after a record period of 45 years' service, which in quality has never been surpassed. "No meeting would be felt to be complete without his presence and without the advantage of his contributions to the debates." In 1927, the Council elected him an Honorary Associate, the highest distinction it could award. He was the first to receive the award of Honorary Fellowship, in 1933. He had received the first award of the Steel Memorial Medal, in 1897.

International Veterinary Congresses

M'Fadyean, for many years, was the foremost representative of British veterinary science at these congresses. He was President of the Congress which was held in London in 1914, but had to be closed in its early stages on account of the outbreak of the last Great War. It was not until 16 years later, as he then foresaw, that international congresses could be resumed, and he was President of the highly successful Congress held in London in 1930. In his speech at the banquet of this Congress he declared that that was the greatest moment of his life.

There is little doubt but that the circumstances of the last Great War caused him to remain in harness much longer than he had planned. It is likely that he would have sought retirement soon after the holding of the 1914 International Veterinary Congress if this had been successfully concluded, though doubtless he had in mind the difficulty of handing over his interests to a worthy successor; probably, however, he hoped that his colleague, Sir Stewart Stockman, would find himself in a position to continue them.

The tributes paid to him on his delayed retirement from active work in 1927, at the age of 73 years, both on the R.C.V.S. Council and at the presentation made in his honour on behalf of members of the profession generally at the Annual Dinner of the R.C.V.S. held on June 4th, 1928, made him the recipient of the most spontaneous expressions of admiration and affection ever witnessed in the veterinary profession. During these ceremonies he had the sad inner knowledge that his wife, Lady M'Fadyean, without whose virtues of character and domestic qualities, we are deeply convinced, he would never have advanced as he did in his profession, was not destined to share with him the repose they had so well earned. She died on May 3rd, 1929, and since then, at his house in Leatherhead, Surrey, he had been ministered to by his widowed daughter, Lady Stockman. Throughout retirement he led an active life, absorbed in the interests of his calling, and on the whole enjoyed excellent health, with mental faculties undimmed. He died peacefully, from heart failure, at a nursing home in Hindhead after a period of three weeks only of declining health, on Saturday, February 1st, 1941, at the age of 87 years. He was buried, beside his wife, on February 5th, at Putney Vale Cemetery, the funeral being, at his express wish, strictly private.

J. T. E.

[The published text of the Obituary Article on Sir John M'Fadyean has been much abridged from the original manuscript submitted to us at our request by the writer of the article. The abridgement has been made partly because of the pressure on our available space and partly because much of the matter relating to anecdotes and incidents in the life of Sir J. M'Fadyean which we have omitted had better, we thought, await incorporation later in a fuller biography. We hope this will be undertaken. It will be, we are sure, an important contribution to the history of British veterinary science at a critical phase in its development, namely, the phase of transition between the older, immemorial, empirical stage (using the word "empirical" with its best meaning) and the modern, scientific stage. Indeed, a full biography of Sir John M'Fadyean would entail the writing of the history of British veterinary science from the stage which ended with the historical researches of the late Sir Frederick Smith.—*Editor.*]

A Further Personal Tribute

Dr. A. Leslie Sheather writes:—

As a student in my final year, I was present at the Complimentary Banquet to Sir John M'Fadyean in January, 1906, in honour of the Knighthood which had recently been conferred upon him. The gist of one of his phrases has remained embedded in my mind. It was to the effect that one should so labour in one's profession that it should be left the richer when one's time comes.

Sir John truly so laboured, and as surely achieved that desirable end, but his labour did not stop here. He clearly showed to every student passing through his hands the road to travel so that an ever-increasing number should be able to leave things better than they found them.

In the many years that I spent in close association with Sir John, the outstanding feature was a readiness to help. To me that help was given in many ways. It might be direct and apt advice in seeking the solution of some problem under investigation. Not infrequently it was by example to which no specific attention was drawn. Last, but by no means least, it was by direct encouragement of one's own efforts. I little thought when I was present at that banquet in January, 1906, that before the year had wheeled its full course I should be demonstrator to the great man who was speaking, but so it was. The first phase of that association continued for ten years—until I went to India in 1916. During that period my association with the Chief was very close. Diagnosis work in the laboratory, *post-mortem* examinations, practical pathology classes for the students and post graduates, and not infrequently, and often at very short notice, lectures in his stead were all part of my work. The routine work of classes had to be very exact and thorough. One could never let anything makeshift pass with the expression "Oh, that will do." In the investigation side of the work there were two expressions constantly recurring in his talk, and they were characteristic: "Make assurance double sure" and "We must not be biased in our judgment."

During my four years in India, Sir John remained in touch with me by letter, and in 1920, when I returned, it was to become a member of his staff again. One was immediately conscious of the same directness of purpose, although even then Sir John was approaching an age at which many men begin to think of retirement. That retirement did not take place until another seven years had passed.

I am happy to say that with the official termination of my association with Sir John, which had covered a period of 21 years, private association did not come to an end. In 1928, just after I had started my laboratory in London, Sir John came to see me, and one thing he said remains in my memory: "Sheather, if I were a younger man, I would come along and help you."

At Easter, 1932, when I had moved to Chorleywood because I was too cramped in London, I wrote to Sir John and asked him if he could come to see my new laboratory. His reply was, "I'll come when you've heard the cuckoo." He was as good as his word, although the call of the cuckoo was a few weeks old when he came. Every year from that time he came from Leatherhead to see me early in June, up to 1939. Even in 1940 he wrote saying that he feared the shortage of petrol might make it impossible for him to drive over in his own car, but, to use his own expression, "Maybe I'll trundle over in a hired car." Unfortunately his health did not allow him to make that visit and the last time I saw Sir John was at his home in Leatherhead when I drove over one Sunday in July, 1939. At that date he was his old bright and penetrating self.

It has been said with some truth that Sir John seldom laughed aloud and even rarely smiled, but there was a fund of humour there. I remember an occasion, away back before I went to India, when I was on all night duty taking temperatures of some experimental animals, and was consequently dining at the College House, the subject of baldness cropped up in conversation. The question was whether it was better to go grey than bald. Sir John passed his hand ostentatiously over his own bald head and with mock gravity said "Death is preferable to dishonour."

So the great man has passed. In brighter days ahead, when men's minds are freed from the insistent clouds which now hang over them, more great men must carry on the ever-widening ambit of work which the veterinary profession will be called upon to do for the benefit not only of agriculture but of human health.

CLINICAL COMMUNICATION

Anal Neoplasms in the Dog

G. S. ALLEN, M.R.C.V.S.
Honiton

Subject.—Twelve-year-old Great Dane dog, weighing approximately 120 lb.

History.—The patient was first examined on January 13th, 1939, and found to be suffering from a number of small subcutaneous neoplasms around the anus, diagnosed as "anal adenomas." I was unable to undertake to operate at the time, and extirpation was performed by another operator.

On November 3rd, 1939, I was again consulted, and found that the neoplasms had recurred, and seemed to be assuming here and there the characters of small epitheliomata, with surface ulceration and bleeding.

Between this date and the following November a number of such small growths were removed from time to time by ligation.

By November, 1940, the whole of the peri-anal tissue was affected, and the neoplastic growth had also spread to the under-surface of the tail; the patient was seen to be losing condition and evinced continual pain in the anal region. It was therefore decided to perform a radical operation under general anaesthesia.

Prognosis.—In view of the dog's age, the probability that the operation would be a lengthy one, and the presence of albumin in the urine, prognosis was rather guarded.

Anaesthesia.—A most interesting feature of this case was the ease of induction of anaesthesia, with the help of one assistant only. Being of very gentle disposition, the patient was made to lie down, when all four legs were hobbled together with cords, the only other precaution being the use of a tape-muzzle. Nembutal, by the intravenous route, was considered to be the most suitable anaesthetic. Assessing the requirements at slightly more than one-seventh grain per lb. bodyweight, 18 grains were dissolved in 10 c.c. of boiled water, the site of injection being the right recurrent tarsal vein. Twelve grains were first injected steadily

without pause, the phase of excitement being very slight and brief, lasting only a few seconds. Injection was then continued very slowly, and full light anaesthesia was attained when 16½ grains had been administered.

Operation.—All neoplastic tissue in the peri-anal region and tail was dissected out deeply, the overlying skin being removed at the same time. Great care was taken to ensure that every piece of possibly neoplastic tissue was extirpated.

Haemorrhage was very troublesome, and a number of arteries had to be located and ligated with fine silk, considerably prolonging the operation. Finally, the resulting three incisions were closed with interrupted silk sutures and a few deep co-aptation sutures, and the whole site dusted with an antiseptic powder.

After-treatment.—The patient was given one pint of glucose-saline solution subcutaneously one hour later and recovery henceforward was steady and uneventful.

The wounds were left uncovered and antiseptic dressings applied daily, the sutures being removed after ten days.

Results.—At the time of writing there is no sign of recurrence and the dog has improved very considerably in condition.

Discussion.—The need for care in removing all neoplastic tissue in such cases is demonstrated, and the usefulness of nembutal in aged subjects with renal affections is well illustrated.

ABSTRACTS

[THE MODE OF ACTION OF SULPHANILAMIDE. Fuller, A. T., *et al.* (1940.) *J. Path. and Bact.* **50**. 105-125.]

In this uncompleted study of the mode of action of sulphanilamide the authors have given special consideration to the type of medium used in the experiments carried out and suggest that in this way more useful information may be gained on this complex problem. The direct bactericidal action of sulphanilamide on streptococci, now widely accepted, is shown to be greatly affected by various other factors which, in themselves, have a favourable or unfavourable influence on the growth of the organism. In the presence of adverse growth factors such as low CO_2 tension, dilution of the medium and higher temperatures, the bactericidal power of sulphanilamide is greatly increased, whereas in a medium which promotes a good growth of the organism, the effect of the drug is much less decisive. After many experiments with different strains in various types of media, well illustrated in tabular form, the authors were able to confirm the direct action of sulphanilamide on streptococci but were unable to say whether the drug acts on a specific enzyme system or as a non-specific growth depressant. E. I. T.

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[THE TREATMENT OF CANINE PIROPLASMOSIS WITH SULPHANILAMIDE. Landsberg, J. W. (1940.) *J. Amer. vet. med. Ass.* **97**. 309.]

In experiments on the value of sulphanilamide in the treatment of canine piroplasmosis due to *Babesia canis*, four dogs received doses varying from 0·17 gm. to 0·62 gm. per kilogramme bodyweight daily after anaemia had set in, but all died within two or three days. Three dogs treated before the onset of anaemia with doses varying from 0·05 gm. to 0·17 gm. of sulphanilamide per kilogramme bodyweight, daily for periods from five to eight days, lived for 26 to 116 days. The treatment appeared to cause a reduction of the febrile reaction, a decrease in the number of parasitised corpuscles, and prevented the onset of anaemia; on cessation of treatment, however, the fever returned and the anaemia increased.

The blood of animals under treatment proved infective and it is suggested that resistance to the drug may develop. It is concluded that sulphanilamide has some beneficial effect, but further study of the dosage is required, particularly as the drug itself is known to be capable of causing anaemia in rats.

U. F. R.

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[BRITISH STANDARD METHOD FOR THE BIOLOGICAL ASSAY OF VITAMIN D_3 BY THE CHICK METHOD. Specification No. 911: 1940. British Standards Institution. 2s.]

It is now well recognised that amounts of cod liver oil and irradiated ergosterol (vitamin D_2) which contain an equal number of vitamin D units as determined by tests on rats, *i.e.*, International Units, may not possess equal antirachitic activity when tested on poultry. The reason for this discrepancy, as several workers—notably C. E. Bills—have shown, lies in the fact that there are several distinct forms of vitamin D each with varying activity. For example, vitamin D_2 is only 3 per cent. effective for the chick as compared with the rat, whereas vitamin D_3 (7-dehydrocholesterol) and the form of vitamin D present in *pure* cod liver oil (*i.e.* oil derived solely from the livers of *Gadus morrhua*) is 100 per cent. effective. Moreover, the results of comparative tests of fish liver oils of various species, many of which belong to the family Gadidae and which can therefore, under the terms of British Specification 839 Veterinary Cod Liver Oil, be classed as "cod liver oil," have shown that more than one form of vitamin D is present in fish liver oils, and that these forms vary in their antirachitic activity on chicks and rats.

It necessarily follows from the above facts that the antirachitic efficiency of vitamin D-containing substances as measured by the rat method, and therefore stated in International Units, cannot be relied upon with any certainty when applied to the chick, except for *pure* cod liver oil. British Specification 911 is an attempt to provide a reliable test of cod liver oils intended for poultry feeding.

Two recognised methods of determining the antirachitic activity of an oil or vitamin D concentrate on chicks are described in detail, *viz.* :—

1. The Radiographic Method based on the TMT test of Olsson, 1936, *Achiv. für Geflugelkunde*, 10, 11/12.

2. The Bone Ash Method based on the AOAC Method, 1937, Vol. XX, No. 1, pp. 72-3.

In both methods the antirachitic value of the substance under test is estimated by comparing it with the antirachitic activity of a preparation of pure crystalline D_3 kept under the control of the British Standards Institution. Both methods involve considerable statistical analysis and in view of the unfamiliarity of some research workers and analysts with the use of statistical methods in the design and interpretation of experiments, the Specification includes a worked-out example of the methods.

[While this Specification is undoubtedly a genuine attempt to provide a reliable method of assaying vitamin D-containing substances for poultry use, it is doubtful, in view of its complicated nature, whether it will be used by the manufacturers of cod liver oil and other vitamin D containing substances].

N. J. S.

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[FAMILIAL CEREBELLAR HYPOPLASIA AND DEGENERATION IN HEREFORD CALVES. Innes, J. R. M., Russell, D. S., and Wilsdon, A. J. *J. Path. and Bact.* **50**. No. 3.]

The authors describe a condition encountered in five pedigree Hereford calves on three different farms. Clinical symptoms were observable at birth and consisted of stupor and inability to rise. The calves frequently lay on their side with neck and limbs stiffly distended. If lifted and placed on their feet, frequently the animals collapsed and often they fell backwards. The calves were able to suck if held up, but no improvement in the clinical condition occurred. The animals were killed at 1 to 20 days' old, and *post-mortem* examination was carried out immediately after death. Macroscopically, there were no abnormalities except in the cerebellum, which was abnormally small, and tough and leathery in texture. A very complete description of the microscopical findings is given. The authors consider that the condition is due to an hereditary factor emerging from intensive inbreeding.

D. W. M.

IN PARLIAMENT

The following are among the questions and answers recently recorded in the House of Commons:—

Knackers

Sir R. Gower asked the Minister of Labour whether he is aware that, owing to the calling up of knackers, it is impossible to obtain a sufficient number of expert men to slaughter animals, with the result that horse-flesh is scarce and being wasted, while owners of animals, which would otherwise have been usefully slaughtered, are merely burying the carcases; and whether, in view of the importance of not wasting material, he will consider allowing a reasonable number of these men to be retained in civil life?

Mr. Bevin: There are already arrangements under which the deferment of individuals can be considered at the request of any of the Government Departments concerned.

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Slaughter of Animals (Prosecution)

Mr. Parker asked the Parliamentary Secretary to the Ministry of Food what number of prosecutions for illegal slaughtering of animals have taken place in the last six months; and whether a close watch is being kept in this matter?

The Parliamentary Secretary to the Ministry of Food (Major Lloyd George): During the six months ended December 31st, 1940, the latest period in respect of which figures are available, 106 such prosecutions have been instituted. The answer to the second part of the Question is in the affirmative.

Mr. Parker: Is the hon. and gallant Gentleman aware that there is a lot of talk about slaughtering being done on the sly, and is he taking steps to strengthen machinery for inquiring into such rumours?

Major Lloyd George: A very close watch is being kept on the situation.

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Agriculture (Feeding-Stuffs)

Mr. Jackson asked the Minister of Agriculture whether he is aware that in "Growmore" leaflet No. 41, published by his Department, the promise is made to farmers who sold their corn at an early date that that corn would be taken into account when assessing the quantity of their future ration of feeding-stuffs; that this condition is not being fulfilled; and will he take steps to fulfil it?

Mr. Hudson: Farmers who have sold their own grain, or have used it, or reserved it for use as seed on their own farms, before the rationing scheme was introduced on February 1st have such quantities taken into account in calculating the quantities of rationed feeding-stuffs that they shall be allowed to purchase during the currency of the rationing period. Any such sales are deducted from any surplus, that is, the quantities in excess of his requirements that the farmer produces, but they cannot be used to establish a credit. Any farmer, however, who has sold or used for seed so large a proportion of his grain that he has insufficient supplies remaining to make up, with the purchased supplies allowed to him, the requirements of his livestock, may obtain on application to his County War Agricultural Executive Committee, an additional issue to make up the difference.

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Universities (Grants)

Mr. Pickthorn asked the Chancellor of the Exchequer whether he can now make a statement on the Treasury grant-in-aid to the universities and colleges during the coming financial year?

Sir K. Wood: Yes, sir. The House will recall that, in view of the vital part played by the universities in the life of the community, the importance of maintaining as far as possible the standards of university education, and the essential contribution which the universities were making in a variety of ways towards the national effort, it was decided to maintain the provision for the current year at the same level as that in 1939, namely, £2,149,000. These conditions have lost none of their force, and, despite the increasing strain on the national finances, the Government, after considering a report from the University Grants Committee, have reached the conclusion that if the universities are to continue their present contribution to the national effort, the provision for 1941 must be maintained at the existing level. They earnestly hope that local authorities will take similar action.

Mr. Woodburn: Since the universities are to receive considerable amounts of public money, will steps be taken to implement the Prime Minister's hopes that universities will be made available to all members of the public and not confined to any one section?

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Poultry Industry

Sir A. Maitland asked the Parliamentary Secretary to the Ministry of Food whether his attention has been drawn to the difficulties of the poultry industry and the prospect of scarcity of eggs next winter; and what steps are being taken in connection therewith?

Major Lloyd George: I am aware of the difficulties of the poultry industry and of the present and prospective shortage of eggs due to the shortage of feeding-stuffs. I can, however, hold out no hope that it will be possible for some time to come to increase the supplies of feeding-stuffs for poultry.

Foot-and-mouth disease has been confirmed among cattle at Thurton, near Great Yarmouth, and further outbreaks have been notified from land about five miles from Dublin as well as from the counties of Meath and Kildare, Eire.

NOTES AND NEWS

The Editor will be glad to receive items of professional interest for inclusion in these columns.

Diary of Events

Mar. 6th.—Meeting of the Central Division, N.V.M.A., at the Conway Hall, Red Lion Square, W.C.1, 2 p.m.
Mar. 6th.—Meeting of the South Eastern Division, N.V.M.A., at the Royal Star Hotel, Maidstone, 2.15 p.m.
Mar. 7th.—Annual Meeting of the South Wales Division, N.V.M.A., at Carmarthen, 1.15 p.m.
Mar. 10th.—Meeting of the N.V.M.A. Committee on Tuberculin Tests at 36, Gordon Square, 11.30 a.m.
Mar. 11th.—Meeting of the N.V.M.A. Finance and General Purposes Committee, Royal Station Hotel, York, 2.30 p.m.
Mar. 11th.—Meeting of N.V.M.A. Survey Committee, Royal Station Hotel, York, 8 p.m.
Mar. 11th.—Meeting of the R.C.V.S. Examination Committee, Royal Station Hotel, York, 5.15 p.m.
Mar. 12th.—Meeting of the R.C.V.S. Finance Committee, 10 a.m., Registration Committee, 11 a.m., R.C.V.S. **Council**, 2 p.m., all at the Royal Station Hotel, York.

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NATIONAL A.R.P. FOR ANIMALS COMMITTEE

Parish Animal Stewards

It is hoped that all veterinary officers have by now organised the Parish Animal Stewards in their areas, as the Executive Officers are anxious that full contact shall be made between N.A.R.P.A.C. veterinary officers and animal stewards and the Ministry of Food officials.

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"Gas" Air Raid Precautions

We would again remind those of our readers who are concerned that, in view of the renewal of interest in "gas" air raid precautions, the veterinary officers of N.A.R.P.A.C. are advised to take any opportunities in their locality of attending lectures on the subject. Those who have already attended "gas" lectures should, if possible, attend refresher courses.

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PERSONAL

Marriages.—Jones—Lipscomb.—On February 22nd, at Farnham Parish Church, at 2 p.m., Oliver Graham Jones, M.R.C.V.S., to Sylvia Clephan Lipscomb, M.R.C.V.S. Future address, 188, Gordon Road, Camberley, Surrey.

Wilkins—Lyons.—On February 3rd, 1941, at the Chapel, Cavalry Barracks, York, Lieut. John Hector Wilkins, R.A.V.C., youngest son of Major J. F. Wilkins, O.B.E., I.G. Police, Bagdad, Iraq, to Minna Margaret Clare, eldest daughter of Mr. and Mrs. A. E. Lyons, 11, Cavendish Crescent, Bath.

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R.C.V.S. OBITUARY

Gray, Daniel Miller, 25, Marsh Parade, Newcastle-under-Lyme, Staffs. Graduated Glasgow, April 29th, 1885. Died February 16th, 1941; aged 79 years.

Pearson, Frank Bernard, 2, Highfield Avenue, Chesterfield. Graduated December 21st, 1892. Died February 16th, 1941; aged 73 years.

Mr. E. Porter-Smith, M.R.C.V.S.

Mr. Edward Porter-Smith, whose death we announced with deep regret in our last issue, was a fine type of country practitioner, of progressive outlook, whose services were highly valued by his clients and who was greatly esteemed by his fellow practitioners, who held him in affectionate regard for his personal qualities. He was elected an Honorary Associate of the Lincolnshire Division, N.V.M.A., in 1938, in virtue of the loyal support he had rendered that old-established veterinary society for many years.

Mr. Porter-Smith, who practised in Lincoln for nearly 40 years, was born at Hankow, China, being the second son of Dr. Frederick Porter-Smith, who was the first medical missionary in China. Dr. Frederick Porter-Smith went to China in 1863 and returned to this country to take up a practice in Somerset after six years in China

On leaving college Mr. Porter-Smith managed a veterinary practice at Mareham-le-Fen for some years, and when he left had what must be regarded as a signal distinction for a young man so employed, namely, a tribute from the farming community, this taking the form of an illuminated address and a purse of gold. Thus, in 1898, he arrived at Lincoln and went into a partnership which lasted only a short time.

Mr. Porter-Smith then set up in practice on his own account in Monks Road, where he practised until, in 1933, he took the late Major A. N. Foster into a partnership which was dissolved about four years ago. It was our sad duty to record Major Foster's death last week.

For many years Mr. Porter-Smith was official veterinary surgeon to Lincoln Corporation and he did a great deal of inspection work with local authorities in Lincolnshire.

On behalf of his colleagues in the profession, we extend deep sympathy in their bereavement to Mr. Porter-Smith's widow and two sons.

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GENERAL OBITUARY

Lady Moore

We record with sorrow the death, which took place towards the end of last month as the result of enemy action, of Lady Moore, widow of Major-General Sir John Moore, K.C.M.G., F.R.C.V.S., Director of the Army Veterinary Service during the last war, and Colonel Commandant of the R.A.V.C. from 1932 to 1934. Her youngest daughter, Mrs. Patricia Parley, a friend, Mrs. Mollie Orton, and Lady Moore's housekeeper, Mrs. Rebecca Henry, were also killed. Lady Moore was on a brief visit, when a bomb demolished the house in which they were staying; the owner of the house, an R.A.M.C. officer, went on duty shortly before the house was struck, and so escaped.

Lady Moore will be gratefully remembered for the splendid work she accomplished in organising the Comforts Fund for the R.A.V.C. in the last Great War. She shared her husband's distinguished career, as hostess both abroad, particularly in India, and in this country. Possessed of great qualities of mind and heart, she endeared herself to the profession, allying herself wholeheartedly with her husband's manifold interests, more particularly his efforts to promote the welfare of the National Veterinary Medical Association.

Lady (Adelaide Mary) Moore was the daughter of the late Mr. Benjamin Murphy, of Prior Park, Clonmel. Her marriage took place in 1903 and she was left a widow last February, a year before she met her death. There were three daughters of the marriage: the youngest, Patricia, was the wife of Lieutenant Peter Parley, of the Royal Artillery.

To those thus tragically bereaved—the eldest daughter, Dr. Jocelyn Moore, the distinguished gynaecologist, and the second daughter, Mrs. Carp, the wife of a Dutch officer now in Holland—we extend our deepest sympathy.

SPARE PARTS FOR MOTOR CARS

The Ministry of Agriculture, it was stated in our issue of February 8th, was discussing with the Ministry of Transport, the question, raised by the N.V.M.A., of giving priority facilities to veterinary surgeons to enable them to obtain spare parts for their motor cars. The Association has now received the following intimation from the Ministry of Transport:—

"The Minister is not unmindful of the importance of vehicles owned by members of the veterinary profession being kept in service, but in view of the many demands on the limited amount of material available and the burdens placed on manufacturing capacity by the requirements of the Services, it is not possible to give priority to any of the many classes of user who are engaged on urgent national work.

"Steel has been allotted to the various vehicle manufacturers for the production of all spares and if the normal suppliers are unable to meet the demands of members of your Association, it is suggested that they should get in touch with the manufacturers of their vehicle, or with their accredited service agents. No symbol or other form of authority is necessary in order to obtain spare parts."

***. It was announced on February 20th that the Ministers of Transport and Supply have decided to set up a committee to advise them on questions relating to the maintenance of civil road transport and the repair of Service vehicles in civil establishments.

The committee will advise the two Departments on the supply of motor vehicle spares and accessories and the provision of maintenance and repair facilities for civilian road transport, including premises, equipment, and the provision of labour. The Secretary is Mr. J. N. Henderson, of the Ministry of Transport.

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SHORTAGE OF SLAUGHTERMEN

In our issue of February 8th we reproduced the reply received from the Ministry of Labour and Home Security in response to the Association's representations that the supply of labour to horse slaughterers and knackermen should be maintained at an efficient level. In reply to a similar communication, the Ministry of Health state that any application by a firm (claiming to be engaged on work of vital importance) to the Ministry to recommend deferment of the calling up of an employee (to be made on form N.S. 100, obtainable on request) is considered on its merits; if the Minister feels justified in supporting the application, it is forwarded to the Minister of Labour and National Service, with whom the decision rests.

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ADJUSTMENT OF LIVESTOCK NUMBERS TO FOODSTUFFS AVAILABLE

A warning that farmers might have to reduce the numbers of cattle and sheep was made at Chelmsford last week by the Minister of Agriculture (Mr. R. S. Hudson). He said the feeding-stuffs rationing scheme was bound to have troubles, but the administration would run more smoothly as time went on. He had received numberless letters from the small man saying how grateful he was to know that he would be assured of his fair share of supplies. Further reductions in rations were almost certain to come quite soon. Therefore it was most important that farmers should do their best to adapt themselves to the rationing scheme, otherwise it would be impossible for smaller rations to be administered smoothly.

There was no doubt that the numbers of our livestock would have to be adjusted so as to give the maximum amount of feeding for human consumption with the feeding-stuffs and grazing available. It was important that farmers should realise that the time might well come when they might have to cut down the numbers of their cattle and sheep in order to keep the remainder properly fed.

THE STATE TURNED FARMER

There has been no more striking feature of the food production campaign that the revolutionary activities of the county war agricultural committees in connection with the grading-up of farms, and the absence of criticism with which what was once known as "the conservative industry" has accepted Government intervention in the national interest. Nearly a thousand farm tenancies have been terminated by the county war agricultural committees on the ground that the holdings were not being properly and efficiently cultivated. In some cases the committees are selecting new tenants whose abilities and capacity to farm are approved. In others, the committees themselves are carrying on the farms.

"And so," comments the *Farmers' Weekly*, "through provincial authorities to whom its powers have been delegated, the State itself has turned farmer of many thousands of acres of 'this fertile land of ours,' assuming all the obligations of the greatest and the smallest farmer in the country. Whitehall has begun to farm. The county committees are the bailiffs."

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H.M. STATIONERY OFFICE PUBLICATIONS

The undermentioned have been published recently. Copies can be purchased through any bookseller, or directly from H.M. Stationery Office, at Hotel Lindum, St. Anne's, Lytham St. Anne's, Lancs.

	Price net s. d.	*Post free* s. d.
Statutory Rules and Orders, 1941: E.P. 124. Feeding Stuffs (Rationing) Order, January 30th, 1941 ...	0 3	0 4

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Weekly Wisdom

There is no one more unfortunate than the man who has never been unfortunate, for it has never been in his power to try himself."—Seneca.

* * * * *

"So long as I have any voice in the matter, I will see that our dairy herds are maintained at all costs."—*Lord Woolton.*

CORRESPONDENCE

Letters to the Editor should reach the Office not later than by the first post on Tuesday morning for insertion in following Saturday's issue.

The views expressed in letters addressed to the Editor represent the personal view of the writer only and must not be taken as expressing the opinion or having received the approval of the N.V.M.A.

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A NATIONAL VETERINARY SERVICE

To the Editor of the Veterinary Record

Sir,—It is now many months since Professor Dalling presented his comprehensive and somewhat disconcerting address on the future of the veterinary profession, and his views were confirmed by leading members of the profession at meetings of the Association convened to discuss them. Since then the Survey Committee has been busily engaged in reviewing the situation and, according to your Supplement of January 25th, has after much travail brought forth a Panel Scheme which is now to be considered by Divisions if and when their Secretaries can arrange meetings and members can attend them. But in these troublous times this may be difficult, and in the meantime some mild criticism may be permissible through the medium of the *Record*, the official journal of the Association. Indeed it appears

desirable that the scheme evolved by the Committee, or any other scheme which may profoundly affect the future of the profession, should be fully discussed and approved not only by the members of the N.V.M.A., but by all members of the R.C.V.S. before being brought into effect. A similar situation has arisen in connection with the formation, by the British Medical Association, of a medical planning commission to consider problems of reconstruction and reorganisation in the field of medicine in the post-war era, and questions have been asked in Parliament as to whether an "individual and unofficial medical association" can command the general assent necessary before such reorganisation can be brought about.

In our own case, however, there is the question of urgency which is of paramount importance. Our President, in his able address, has stated that "if we as a united profession do not seize this opportunity now we shall be doing a disservice to future generations of veterinarians and shall see disease control parcelled out among the allied sciences and other parties interested in agriculture who are less qualified than ourselves to do the job." Presumably it is the war which is affording us this opportunity: but the war has been on for some time and we as a profession are still doing far less towards the national effort than we should as an organised body.

This is all the more unfortunate since there is so much that we could do, not in the military field perhaps, but in an equally important direction, namely, the resuscitation of the decadent pastoral industries of this country—a task which our profession alone by reason of its education, practical training and experience is qualified and able to perform. In view of the urgency of the situation it might have been well had the Committee, or preferably the R.C.V.S. as our parent body, gone boldly to Government and urged that the services of the profession might be organised and used immediately. In the light of the Minister of Agriculture's recent statement as published in the *Farmers' Weekly*, to the effect that "unless we can get these changes and this increased production we shall not survive as a nation during the next 18 months," it would have been difficult for him to have refused our proffered assistance.

Let us consider for a moment what this increased production, without which the nation will starve, really is. It is not only wheat and vegetable products but chiefly animal products which are essentially the concern of the veterinary profession. When we remember that before the war we in this country imported nearly 70 per cent. of our animal products, including

	per cent.		per cent.
Butter ...	... 90	Eggs ...	... 30
Cheese ...	... 69	Mutton and lamb	67
Bacon ...	... 70	Beef and veal ...	47

we realise the gravity of the situation and the stupendous task suddenly imposed upon the stock-owner who is now called upon, as by a stroke of the Ministerial pen, to make good this deficiency: and this in spite of the fact that much of his valuable pasture-lands have been ploughed up for the production of grain, that feeding-stuffs are difficult to obtain, that labour is costly and scarce, and that the ordinary routine of the farm and markets is disorganised. But above all, as every veterinarian knows, his greatest difficulty lies in the fact that his flocks and herds are continually depleted by diseases. The Survey Committee in its Report estimates the losses caused by a few of these diseases at £20 million per annum, but the sum total of direct and indirect losses must be considerably greater. Not only the losses of stock and animal products but the wastage caused by uneconomic methods must be enormous. How then with this constant drain upon his resources is the farmer to supply 70 per cent. more produce than in the "piping days of peace," without the assistance of the veterinary profession?

At the risk of being considered unduly pessimistic, one may, perhaps, express some doubt as to whether a Panel Scheme to which the farmer is called upon to contribute will meet the present emergency or rehabilitate the profession. The medical profession has for many years enjoyed (*sic*) such a system but to-day is pressing for a National Medical Service. A panel system, as I know from personal experience, blesses neither him that gives nor him that takes. The practitioner becomes the slave of his innumerable and ungrateful clients, especially if they are called upon to contribute the smallest sum to his upkeep. On the other hand, as one who during the past few years has associated intimately with many small farmers—according to official statistics the majority of our farms are under 100 acres—I have found that these men are already embarrassed by official rules and restrictions and are not likely to welcome any additions to them, especially if they have to pay for them. It is not by imposing any further burdens upon the farmers that we shall enlist their confidence and co-operation—so necessary if we are to help them to build up anew the pastoral industries of this country during the next 18 months. Our services must be helpful, practical and tactfully offered. And above all they must be free. This is work of national importance and should be paid for by the State.

Therefore, it is, I submit, by a free and beneficent National or State Veterinary Service rather than by a Panel System to which the farmers are called upon to subscribe, that we are most likely to succeed in this all-important effort. Such a service would provide, in the first place, practical veterinary assistance and advice in the breeding and feeding of stock, the standardisation and marketing of animal products, the treatment of minor diseases; and later, when we have gained the farmers' confidence and co-operation, we could pass on to the detection and elimination of infected and unprofitable animals. As the result of over 30 years' experience in veterinary administration in a country where the farmers are no more amenable than in this country and where diseases were as plentiful and insidious, I can confidently assert that tactful and helpful methods are more likely to succeed than hurried and arbitrary measures which often ruin the farmer, or defeat their own ends by leading to suppression of information and dissemination of infection.

A National Veterinary Service sounds a Utopian idea, but it is the system which has been successfully applied in some of our colonies and dominions and has enabled them to build up their pastoral industries on a sound foundation—that is, a foundation of good health; and has brought them to such a state of productivity that until recently they have been able to supply this country with much of that vast quantity of animal products which the home farmer is now called upon to produce. Fortunately we already have in our excellent but admittedly overworked State Veterinary Service the nucleus of such a scheme. This, if enlarged and developed on the advisory and constructive side, would provide employment for every available and suitable member of the profession. Some such scheme would, I believe, be preferable to a panel scheme which, as admitted by the President in his address, was at one time "abhorrent" to him, and could be swiftly elaborated by our very efficient Chief Veterinary Officer in consultation with representatives of the Royal College of Veterinary Surgeons, the Survey Committee and veterinarians of proved administrative ability of whom the profession contains so many. Unfortunately this or any other scheme may interfere with vested interests in the profession, and these must be given the fullest consideration: but this is not a personal matter but one of national importance affecting the profession as a whole. In confirmation of which one may reiterate the statement of the Minister of Agriculture: "unless we can get these changes and this increased production we shall not survive as a nation during the next 18 months"; and the words of our President: "if we as a profession do not seize this opportunity NOW we shall be doing a disservice to future generations of veterinarians and shall see disease control parcelled out among

the allied sciences and other parties interested in agriculture who are less qualified than ourselves to do the job."

Yours faithfully,
Ll. E. W. Bevan.

Office of the High Commissioner,
Rhodesia House,
Strand, London.

February 14th, 1941.

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CONTROLLED REDUCTION OF FARM STOCK

To the Editor of the Veterinary Record

Sir,—At a meeting in Chelmsford yesterday the Minister of Agriculture indicated that a reduction in the number of livestock on farms will be inevitable because of the need to restrict imports of feeding-stuffs.

Does not this offer an opportunity of turning a misfortune into an occasion for a National Livestock Improvement Scheme on a grand scale? The approaching grazing season makes available a period for investigation and preparation against the coming of the critical months of late autumn and winter and it should be utilised to the full. Using as a guide such fundamental factors as freedom from disease, economical productivity, adaptability to local conditions, etc., a properly conducted survey would allow of the grading of animals (particularly cattle) into classes ranging from, *e.g.*, "Excellent"—to be retained to the last—down to "Very Poor"—to be disposed of early, thereby making possible retention and rejection in an orderly manner. This would prevent the destruction of superior animals in one area while inferior ones were retained in another.

Doubtless the rigorous application of this plan would result in the denuding of farms or even areas where the stock is of poor quality and disease very prevalent, but even this could be used to advantage by dealing with such places in the manner necessary to ensure their suitability for restocking when such became desirable or possible. In the interim the land could be used for producing crops for consumption by humans or by animals on healthy farms.

Of course such a plan cuts deeply into the right of the individual to manage his own affairs but not more so than in other directions, and it does offer the chance of ultimate benefit to all.

Yours faithfully,
John C. Grant.

Veterinary Department,
Marischal College,
Aberdeen.

February 22nd, 1941.

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INJUDICIOUS FEEDING OF MUSTARD CAKE

To the Editor of the Veterinary Record

Sir,—During the last few months several cases of severe illness and death amongst cattle, as the result of injudicious feeding of mustard cake, have been brought to our notice. It is hoped that full clinical details will be published at a later date.

In the meantime, practitioners encountering cases of cattle suffering acute abdominal pain, and dying within a few hours, coupled with the discovery of acute gastro-enteritis on *post-mortem* examination, should bear in mind the possibility of this feeding-stuff having been used without due discretion.

Yours faithfully,
S. L. Hignett,
R. W. Roach.

Department of Agriculture,
The University,
Leeds, 2.

February 18th, 1941.

RAPE OIL

To the Editor of the Veterinary Record

Sir,—I see in the comments *re* "Economy in the Use of Drugs during War-time" that under "Rape Oil" it is stated: "There is no justification for the reservation of rape oil for external use in veterinary practice. There are many better substitutes." I am still always anxious to learn and would like to know from the commentators the names of the *many* better substitutes. Hitherto, I have always used *pure* rape oil. How do the prices of the *many* substitutes compare with those of rape oil?

Yours sincerely,
G. Mayall.

Bolton.

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THE DEVELOPMENT OF THE VETERINARY DEPARTMENT OF NIGERIA

To the Editor of the Veterinary Record

Sir,—In my article on the development of the Veterinary Department of Nigeria which you published in the issue of the *Veterinary Record* of December 14th, 1940, I omitted to mention the important part in this development which was played by Mr. W. Kearney, M.R.C.V.S.

Mr. Kearney came to Nigeria from Kenya Colony in September, 1924, and was our first Pathologist. It was his early work in organising the production of anti-rinderpest serum and in bringing this product to a high level of potency, as well as his experimental work in the use of a solution of tartar emetic added to virulent rinderpest blood as a preventive of the accidental transmission of trypanosomiasis, that made it possible, shortly after his arrival, for a scheme of double inoculation against rinderpest to be commenced by the field staff. The success of this scheme and of its subsequent large-scale extension has brought the scourge of rinderpest under control and made possible the development of the live-stock industry of Nigeria to its present-day economic importance.

The early work of Mr. Kearney in Nigeria and the subsequent work of his successors, Dr. N. Hall and the present holder of the post of Veterinary Pathologist, Mr. R. W. Mettam, have clearly demonstrated the essential part played by a well staffed and adequately equipped veterinary laboratory in the work of a colonial veterinary department and its immense practical usefulness in the economic development of the livestock industry.

Yours faithfully,
W. W. Henderson,
Director of Veterinary Services, Nigeria.

Vom, *via* Bukuru,
Northern Nigeria.

January, 1941.

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SIDE-BONES, ETC.

To the Editor of the Veterinary Record

Sir,—If your various correspondents have now exhausted all arguments to convince each other that their views are correct: that irrespective of the nature, extent and duration, all cases of strained tendons require the same treatment: that side-bones *per se* never cause lameness (are no horses ever born with a contracted foot?), can they now express opinions on the various diseases scheduled under the Horse Breeding Act of 1918, and the rigid examination required of a stallion, but not so much as a health certificate from the mares he has to cover?

Whilst we are dealing with horse-flesh do not let us rise from the repast without a good helping! I have certainly enjoyed it so far.

Yours faithfully,
J. F. D. Tutt.

Rothiemurchus,
St. Cross,
Winchester.